



Request under Freedom of Information Act 2000

Request Ref: NGFOI 16/17: 403

Thank you for your request for information received at Northampton General Hospital NHS Trust (NGH) on 01/11/16.

I am pleased that we are now able to provide you with a response to your request as shown below.

You requested:

Can you please list the precise microbiological techniques used in each hospital in your trust to identify or confirm the following infections.

Response from Northampton General Hospital NHS Trust (NGH):

· Clostridium difficile

Testing for GDH (Glutamate Dehydrogenase) on faecal specimens is an initial screening test using an ELISA to detect the presence of this chemical and if found, the result is termed 'GDH positive'. In addition, stool samples that are GDH positive are tested for Clostridium difficile toxins A and B using a palate test.

· Penicillin resistant streptococcus pneumonia

This organism could be isolated from a variety of samples, mostly respiratory. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using antibiotic discs and suspect isolated have a follow-up MIC strip.

· Macrolide-resistant Group A Streptococcus

This organism could be isolated from a variety of samples. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using antibiotic discs.

· Clindamycin-resistant Group B Streptococcus

This organism could be isolated from a variety of samples. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using antibiotic discs.

· Meticillin resistant Staphylococcus aureus (MRSA)

Initial screens are on nose & groin swabs using a chromogenic agar, however other sample types may be received. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System.

· Vancomycin resistant / intermediate Staphylococcus aureus

These organisms could be isolated from a variety of samples. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System.

· Glycopeptide-resistant enterococci

This organism could be isolated from a variety of samples. Occasionally there may be a specific request for the screening of a rectal swab in which case a chromogenic agar would be used. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System.

- Multi-drug resistant *Pseudomonas aeruginosa*

This organism could be isolated from a variety of samples. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System.

- Multi-drug resistant *Acinetobacter*

This organism could be isolated from a variety of samples. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System.

- Drug resistant *Campylobacter*

Generally restricted to faecal samples and rarely blood cultures. All isolates are identified using MALDI-TOF technology after growing on *Campylobacter* selective media. Susceptibility testing is performed using antibiotic discs.

- Fluconazole-resistant *Candida albicans*

This organism could be isolated from a variety of samples using Sabouraud agar. All isolates are identified using MALDI-TOF technology. Susceptibility is performed using a Sensititre method.

- Carbapenemase-Producing Enterobacteriaceae (CPE)

These organisms could be isolated from a variety of samples. Occasionally specific screening is requested on faecal swabs using selective media and chromogenic agar. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System. Disc diffusion methods are used to identify AmpC and ESBLs. Suspect CPEs are registered on the PHE website for Electronic Reporting System for the Enhanced Surveillance of Carbapenemase-Producing Gram-Negative Bacteria. The organisms are referred to PHE Colindale for PCR tests for genes that encode acquired carbapenemases for class A, B & D.

- ESBL-Producing Enterobacteriaceae

These organisms could be isolated from a variety of samples. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System. Disc diffusion methods are used to identify AmpC and ESBLs.

- AmpC-Producing Enterobacteriaceae

These organisms could be isolated from a variety of samples. All isolates are identified using MALDI-TOF technology. Susceptibility testing is performed using an Automated Microbiology System. Disc diffusion methods are used to identify AmpC and ESBLs.

- Drug resistant non-typhoidal *Salmonella*

Generally restricted to faecal samples and rarely blood cultures. Isolated on selective media. All isolates are identified using MALDI-TOF technology and antisera. Susceptibility testing is performed using antibiotic discs. Isolates are referred to PHE Colindale for further identification and confirmation.

- Drug resistant *Salmonella typhi* / *paratyphi*

Generally restricted to faecal samples and rarely blood cultures. Isolated on selective media. All isolates are identified using MALDI-TOF technology and antisera. Susceptibility testing is

performed using antibiotic discs or an Automated Microbiology System is systemic. Isolates are referred to PHE Colindale for further identification and confirmation.

- Drug resistant Shigella

Generally restricted to faecal samples. Isolated on selective media. All isolates are identified using MALDI-TOF technology and antisera. Susceptibility testing is performed using antibiotic discs. Isolates are referred to PHE Colindale for further identification and confirmation.

- Drug resistant TB (MRDTB, XDRTB, Pan-DRTB)

Cultures of Acid Alcohol Fast Bacilli are referred to PHE Birmingham for identification and susceptibility testing. This is done by PCR.